UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|----------------------------|----------------------|----------------------|------------------|
| 10/646,930 | 08/25/2003 | Ron Robeniol Legario | 6826-195 | 1597 |
| 1059 BERESKIN A | 7590 12/27/2007 ND PARR | | EXAM | INER |
| 40 KING STREET WEST | | | FELTON, AILEEN BAKER | |
| BOX 401 TORONTO, O | N M5H 3Y2 | | ART UNIT | PAPER NUMBER |
| CANADA | | | 1793 | |
| | | | NAW BATE | |
| | | | MAIL DATE | DELIVERY MODE |
| • | | | 12/27/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) | | | | |
|---|--|--|--|--|--|--|
| | 10/646,930 | LEGARIO ET AL. | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Aileen B. Felton | 1793 | | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA. - Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period variety or reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tirn vill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE | N. nely filed the mailing date of this communication. D (35 U.S.C. § 133). | | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) filed on 6/6/2 | | | | | | |
| | | | | | | |
| · · · · · · · · · · · · · · · · · · · | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | | | | | | |
| 4) Claim(s) 1-16,31-36,38-52 is/are pending in the application. 4a) Of the above claim(s) 4,12,34,45 and 46 is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 6)⊠ Claim(s) <u>1-3,5-11,13-16,31-33,35,36,38-44 an</u> 7)□ Claim(s) is/are objected to. | u 47-32 Israile rejected. | | | | | |
| 8) Claim(s) are subjected to: 8) Claim(s) are subject to restriction and/or election requirement. | | | | | | |
| | | | | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the Examiner. | | | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: | | | | | | |
| 1. Certified copies of the priority documents have been received. | | | | | | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage | | | | | | |
| application from the International Bureau (PCT Rule 17.2(a)). | | | | | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| | | | | | | |
| Attachment(s) | | | | | | |
| 1) Notice of References Cited (PTO-892) | (PTO-413) ate | | | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date | 5) Notice of Informal F 6) Other: | | | | | |

10/646,930 Art Unit: 1793

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 52 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 52 requires that the epoxy group binds with the ammonium nitrate, this is not enabled since the specification indicates that this is a theoretical reaction and that Applicant "believes" that this reaction occurs.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1-3, 5-10, 14-16, 31-33, 35, 36, 38, 43, 44, and 47-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson (3136668).

Simpson et al discloses a propellant that comprises an oxidizer such as ammonium nitrate from 50-90 % (col. 11, lines 4-11 and col. 12, lines 1-6), a bituminous material such as fuel oil (col. 3, lines 1-10), and up to 50 % of a polyepoxide such as

Application/Control Number:

10/646,930 Art Unit: 1793

epoxidized soybean oil (col. 3, lines 70-75 and col. 11, lines 55-75). Simpson also discloses that the components can be combined in varying orders (col. 11).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to select the components as shown by Simpson since Simpson indicates that the mixture of the three components is used to make the propellant and also to combine the components in various orders since Simpson suggests that they may be mixed this way. See *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) (selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results) and *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is prima facie obvious). See MPEP 2144.04(IV)(C).

5. Claims 11, 13, 39, 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simpson (3136668) as applied to claims 1-3, 5-10, 114-16, 31-33, 35, 36, 38, 43, 44, and 47-52 above, and further in view of Clay (4181546).

Simpson does not disclose the density of ammonium nitrate.

Clay teaches a dry ammonium nitrate product that is combined with fuel oil where the ammonium nitrate prills have a density above 1.4 g/cc (col. 1, lines 10-40, and col. 3, lines 15-35).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use ammonium nitrate with density above 1.4 g/cc since Clay suggests that this density is useful with a dry ammonium nitrate product that includes fuel oil.

10/646,930 Art Unit: 1793

Response to Arguments

6. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen B. Felton whose telephone number is 571.272.6875. The examiner can normally be reached on Monday-Friday 6:30-4:00, except alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571.272.1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aileen Felton/ Primary Examiner Application/Control Number: 10/646,930 Art Unit: 1793

Page 5

Art Unit 1793